

AMENDMENT TO THE CLAIMS

IN THE CLAIMS:

Please amend claims 1, 5, 13 and 19 as follows. Please add claims 20-24 as follows. A copy of all pending claims and a status of the claims are provided below.

1. (currently amended) An apparatus for simulating and monitoring a respiration pattern of a human, comprising:
a reservoir having an outlet leading to two passageways;
an actuator disposed in the reservoir for moving fluid in and out of the reservoir; and
a control unit electrically coupled to the actuator for controlling the actuator to simulate a respiration pattern of a human.
2. (original) The apparatus of claim 1, wherein the reservoir has a pair of cylinders connected in parallel by a conduit.
3. (original) The apparatus of claim 1, wherein the actuator includes a piston disposed in the reservoir.
4. (original) The apparatus of claim 1, further including a valve in fluid communication with the outlet of the reservoir, the valve being configured to control a flow rate of the fluid to and from the reservoir.
5. (currently amended) The apparatus of claim 1, wherein the control unit including includes a waveform generation device for generating a waveform defining the respiration pattern.

6. (original) The apparatus of claim 5, wherein the control unit controls the actuator based on the waveform to simulate the respiration pattern.

7. (original) The apparatus of claim 6, wherein the waveform generation device generates the waveform based on human respiratory characteristics.

8. (original) The apparatus of claim 7, wherein the human respiratory characteristics are prestored in the control unit.

9. (original) The apparatus of claim 7, wherein the human respiratory characteristics may be inputted to simulate a desired respiration pattern.

10. (original) The apparatus of claim 1, further including a pressure transducer in fluid communication with the reservoir and electrically coupled to the control unit.

11. (original) The apparatus of claim 10, wherein the control unit monitors the respiration pattern through the pressure transducer.

12. (original) The apparatus of claim 11, wherein the control unit includes a data acquisition module to store the monitored respiration pattern.

13. (currently amended) A method for simulating and monitoring a respiration pattern of a human, comprising the steps of:

generating a waveform defining the respiration pattern; and

controlling an actuator to move fluid in and out of a reservoir through an outlet leading to two passageways based on the waveform to represent a nasal, oral or nasal and oral passageway breathing.

14. (original) The method of claim 13, wherein the waveform is generated based on human respiratory characteristics.

15. (original) The method of claim 14, further comprising the step of inputting the human respiratory characteristics.

16. (original) The method of claim 14, further comprising the step of storing the human respiratory characteristics.

17. (original) The method of claim 14, further comprising the step of modifying the human respiratory characteristics.

18. (original) The method of claim 13, further comprising the step of monitoring the respiration pattern by a pressure transducer.

19. (currently amended) The method of claim [[17]] 18, further comprising the steps of storing the monitored respiration pattern.

20. (new) The apparatus of claim 1, wherein the two passageways represent a nasopharynx passageway and an oropharynx passageway.

21. (new) The apparatus of claim 1, further comprising a first valve in each of the two passageways.

22. (new) The apparatus of claim 21, wherein the first valve in each of the two passageways are open/close valves disposed at an end thereof and are adjustable to simulate a respiratory pattern for nasal only, oral only, or nasal and oral breathing.

23. (new) The apparatus of claim 21, further comprising a second valve in each of the two passageways, the second valve provides fluid flow resistance in each of the two passageways representing resistance at the oropharynx and nasopharynx.

24. (new) The apparatus of claim 23, wherein the second valve is a needle valve.